

Appl. No. 10/065,482
Amdt. dated January 09, 2006
Reply to Office action of October 20, 2005

Amendments to the Drawings:

Figures 1 and 4 have been amended, and paragraphs [0005] and [0032] of the specification have been amended to match the amendments to the figures.

- 5 Figure 1 now contains reference numeral 10 to identify the optical disk system 10. Figure
4 contains reference numeral 20 to identify the optical disk system 20. In addition, the
reference numeral 200 has been replaced with 201 to distinguish the present invention
optical disk system control chip 201 having the control circuitry 500 from the prior art
optical disk system control chip 200. No new matter is added through these amendments
10 to the drawings or the specification.

Attachment:	Replacement Sheets	2 pages
	Annotated Sheets Showing Changes	2 pages

Appl. No. 10/065,482
Amdt. dated January 09, 2006
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REMARKS/ARGUMENTS

1. Missing oath/declaration:

The Office has not received the oath/declaration with the application.

5 **Response:**

According to the image file wrapper available in the Public PAIR records for this application, the applicants submitted the declaration to the USPTO on 10/23/2003. The declaration is shown on the Public PAIR records as being filed under the Transmittal Letter of 10/23/2003.

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If upon further review, the declaration is still missing or is defective in any way, the applicant respectfully requests the examiner to explain the situation so that the problem can be remedied as quickly as possible.

15 2. Objection to the claims:

Claims 1-20 are objected to because the claims need to be renumbered without the close brackets.

20 **Response:**

Claims 1-20 are listed above without any brackets around the claim numberings. The brackets originally submitted with the claims were used as formatting markers since the application was submitted using the electronic filing system. These brackets were not intended to be part of the claims. Acceptance of the claims is respectfully requested.

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3. Rejection of claims 1-20 under 35 U.S.C. 112, second paragraph:

Claims 1 and 11 contain the limitations, "such that", which render the claims

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Amdt. dated January 09, 2006
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indefinite.

Response:

Claims 1 and 11 have each been amended to correct this indefinite wording.

5 The claims now recite that the microprocessor executes the program code stored in the firmware after the program counter of the microprocessor has been changed. In light of these amendments, reconsideration of claims 1-20 is respectfully requested.

4. Double patenting rejection of claims 1, 9, 10, 11, 19, and 20:

10 Claims 1, 9, 10, 11, 19, and 20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9, 11, 12, 1, 2, and 3 of US Patent No. 6,170,043 to Hu (hereinafter called '043).

Response:

15 The applicant would like to point out how independent claims 1 and 11 are not obvious over claims 9 and 1 in the '043 patent. Claims 1 and 11 each specify that after updating the firmware by executing the update program routine stored in the second buffer memory, the value of the program counter of the microprocessor is changed, followed by the microprocessor executing the program code stored in the
20 firmware memory at a predetermined location of the program code instead of executing a next instruction in the program code located after the current position of the program counter.

25 However, the '043 patent does not specify what should be done after the firmware is updated. If the program counter of the microprocessor is not changed to another value after the update program routine is executed, the microprocessor may end up executing code in the firmware program code at a problem area which could lead to an infinite loop or other problems that hinder the microprocessor from

Appl. No. 10/065,482
Amdt. dated January 09, 2006
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functioning properly.

5 The '043 patent teaches in col.3, lines 58-62 that the computer is turned on or reset to initialize the microprocessor. Additionally, the '043 patent teaches in col.5, lines 25-37 that the computer is reset. However, in each of these instances, the computer is reset before the updating process is executed. As illustrated in Fig.6, the reset step 300 is executed before the update step 322, and is not executed afterwards. Therefore, the '043 patent fails to teach that the value of the program counter of the microprocessor should be changed after updating the firmware and the
10 microprocessor executing the program code stored in the firmware memory at a predetermined location of the program code instead of executing a next instruction in the program code located after the current position of the program counter.

15 For these reasons, the applicant submits that independent claims 1 and 11 are not obvious over claims 9 and 1 in the '043 patent. Reconsideration of the double patenting rejection of claims 1, 9, 10, 11, 19, and 20 is respectfully requested.

5. Rejection of claims 1-20 under 35 U.S.C. 102(b):

20 Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,170,043 to Hu (hereinafter called '043).

Response:

25 As stated above, the '043 patent does not specify what should be done after the firmware is updated. If the program counter of the microprocessor is not changed to another value after the update program routine is executed, the microprocessor may end up executing code in the firmware program code at a problem area which could lead to an infinite loop or other problems that hinder the microprocessor from functioning properly.

Appl. No. 10/065,482

Amdt. dated January 09, 2006

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The '043 patent teaches in col.3, lines 58-62 that the computer is turned on or reset to initialize the microprocessor. Additionally, the '043 patent teaches in col.5, lines 25-37 that the computer is reset. However, in each of these instances, the computer is reset before the updating process is executed. As illustrated in Fig.6, the reset step 300 is executed before the update step 322, and is not executed afterwards. Therefore, the '043 patent fails to teach the claimed limitations of the value of the program counter of the microprocessor being changed after updating the firmware and the microprocessor executing the program code stored in the firmware memory at a predetermined location of the program code instead of executing a next instruction in the program code located after the current position of the program counter. For these reasons, the applicant submits that independent claims 1 and 11 are patentable over the teachings of the '043 patent.

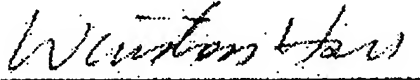
Furthermore, with respect to claims 2 and 12, the '043 patent does not teach changing the value of the program counter of the microprocessor to a predetermined value after updating the firmware by resetting the microprocessor.

In addition, claims 2-10 and 12-20 are dependent on claims 1 and 11, and should be allowed if claims 1 and 11 are allowed. Reconsideration of claims 1-20 is respectfully requested.

In view of the above statements in favor of patentability, the applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Appl. No. 10/065,482
Amdt. dated January 09, 2006
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Sincerely yours,



Date: 01/09/2006

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- 10 Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan.)

Annotated sheet

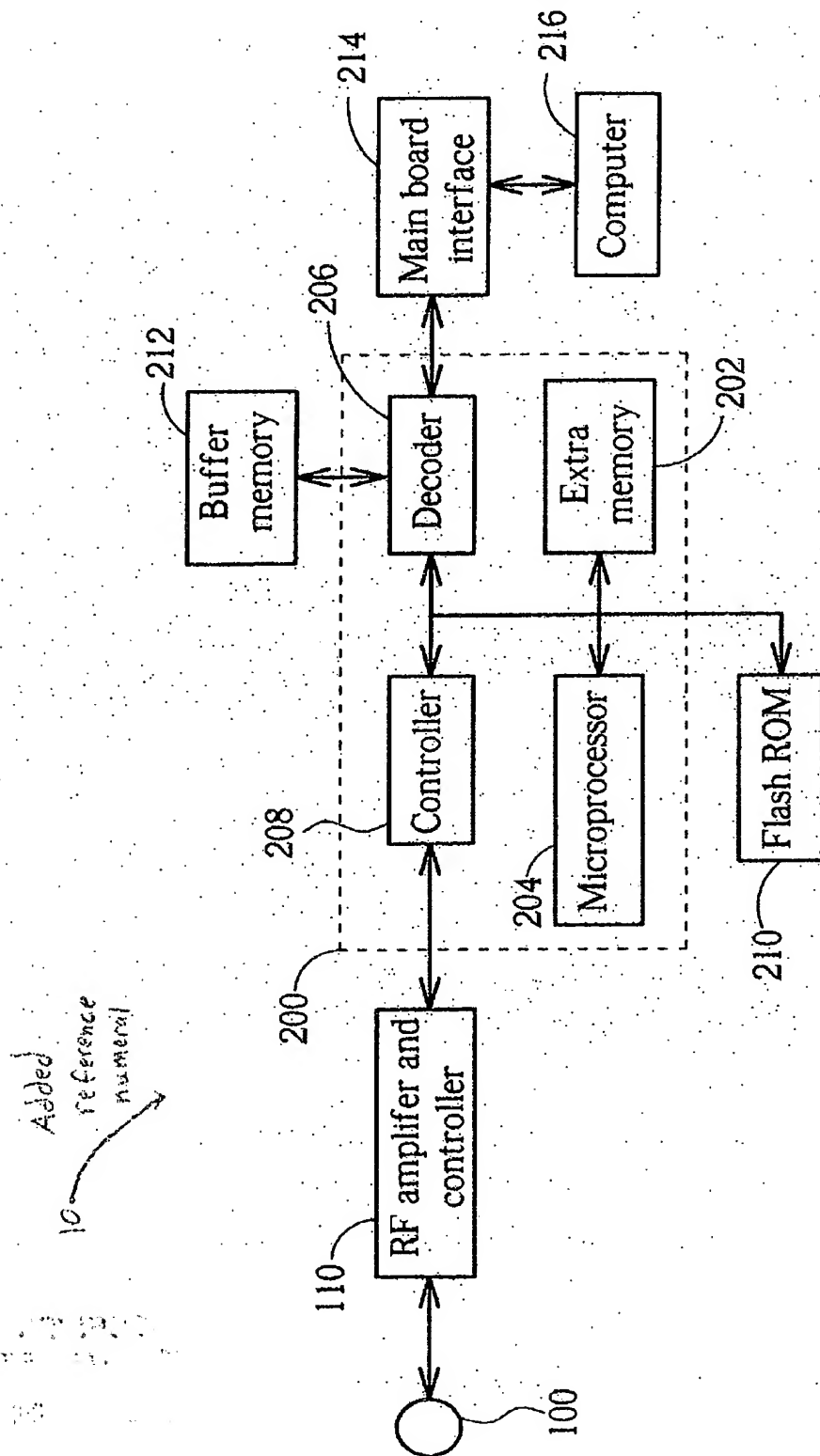


Fig. 1 Prior art

Annotated sheet

